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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,146	01/04/2002	Barrett M. Faneuf	042390.P13123	9303

7590

03/17/2003

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EXAMINER

DUONG, HUNG V

ART UNIT

PAPER NUMBER

2835

DATE MAILED: 03/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,146

Applicant(s)

Faneuf et al.

Examiner

Hung Duong

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-- The MAILING DATE of this communication appears in the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 16-18 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 12, and 16-18 is/are rejected.
- 7) ☒ Claim(s) 9-11 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

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DETAILED ACTION

Election/Restriction

1. Applicant's election of Group I claims 1-12, 16-18 without traverse dated January 17, 2003 in Paper No. 5 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

3. Claims 1-7, and 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Pautsch et al. (US Pat. 6,366,461).

Regarding claims 1-7, and 16-18 Pautsch et al disclose in figures 1 and 2, a computer system comprising: a frame 10; a plurality of chassis inserted into the frame ; a plurality of

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electronic components 14, 15, 16, each on a respective chassis; a plurality of thermal components 38, each thermally coupled to a respective electronic component; and a fluid-channeling structure 21, 22 on the frame 10, the fluid-channeling structure 21, 22 having a fluid inlet and a fluid outlet, heat transferring from each of the thermal components 38 to a fluid after the fluid enters through the fluid inlet and before the fluid exits out of the fluid outlet. Each thermal component 38 includes a main structure and a plurality of fins extending from the main structure, over which the fluid flows (figure 2). The fluid-channeling-structure is an air duct (column 5, lines 62-67). The fluid flows sequentially over successive ones of the thermal components 38 wherein the fins of each respective thermal component are aligned with a direction of flow of the fluid over the respective thermal component (figure 2). Each thermal component has a thermal component internal volume, the fluid flowing through the thermal component internal volumes (column 3, line 10). wherein the fluid flows in parallel through the thermal component internal volumes (figure 2).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pautsch et al. (US Pat. 6,366,461) in view of Bilski et al. (US Pat. 6,351,381).

Regarding claim 8, Pautsch et al disclose all the subject matter of the claimed inventions except for the frame is a support rack frame and the chassis are located above one another in the support rack frame. However, Bilski et al teach a support rack frame and the chassis are located above one another in the support rack frame (see figure 2). Therefore, it would be obvious to one of ordinary skill to modify a support rack frame and the chassis are located above one another in the support rack frame of Bilski et al into Pautsch et al's computer system as applicant's invention in order to be insert more components into the computer system as designed.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pautsch et al. (US Pat. 6,366,461) in view of Konstad et al. (US 2002/0149909).

Regarding claim 12, Pautsch et al disclose all the subject matter of the claimed inventions except for the electronic components are processors. However, Konstad et al teach electronic components are processors (100) (see para. 38). Therefore, it would be obvious to one of ordinary skill to modify an processor of Konstad et al into Pautsch et al's computer system as applicant's invention in order to be processing the computer system accordingly.

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Allowable Subject Matter

7. Claims 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to show that a plurality of heat-absorbing components, each located against a respective electronic component and having a component internal volume where a thermal fluid is heated; and a conduit through which the thermal fluid flows, whereafter heat transfers from the thermal fluid to a respective thermal component.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Agonafer et al. (US Pat. 6,337, 794) teach isothermal heat sink with tiered cooling channels..

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Duong whose telephone number is (703) 308-4889. The examiner can normally be reached on M-F from 8:30 to 5:00PM.

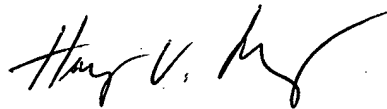
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg, can be reached on (703) 308-4815. The fax phone number for this Group is (703)308- 7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703)308-0956 .

HVD

3/5/03

A handwritten signature in black ink, appearing to read 'Hung V. Duong', with a stylized flourish at the end.

Hung Duong

Patent Examiner.